

REMARKS

Applicant is in receipt of the Office Action mailed April 27, 2005. Claims 1 – 31 and 33 – 68 were rejected. Claims 1 – 31 and 33 – 68 remain pending in the application. Reconsideration of the present case is earnestly requested in light of the following remarks.

Double-Patenting Rejections

Claims 1 – 31 and 33 – 68 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 – 69 of co-pending Application No. 10/047,014, and claims 1 – 60 of co-pending Application No. 10/046,861. Applicant is willing to file Terminal Disclaimers if necessary to overcome these rejections in the event the conflicting claims are patented.

Section 103 Rejections

Claims 1 – 31 and 33 – 68 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication 2001/0034881 (“Washington”). Applicant respectfully traverses this rejection.

As the Examiner is certainly aware, to establish *prima facie* obviousness of a claimed invention, all claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974), MPEP 2143.03. Obviousness cannot be established by combining or modifying the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion or incentive to do so. *In re Bond*, 910 F. 2d 81, 834, 15 USPQ2d 1566, 1568 (Fed. Cir. 1990). As held by the U.S. Court of Appeals for the Federal Circuit in *Ecolochem Inc. v. Southern California Edison Co.*, an obviousness claim that lacks evidence of a suggestion or motivation for one of skill in the art to combine prior art references to produce the claimed invention is defective as hindsight analysis.

In addition, the showing of a suggestion, teaching, or motivation to combine prior teachings “must be clear and particular. ... Broad conclusory statements regarding the teaching of multiple references, standing alone, are not ‘evidence’.” *In re Dembiczak*,

175 F.3d 994, 50 USPQ2d 1614 (Fed. Cir. 1999). The art must fairly teach or suggest to one to make the specific combination as claimed. That one achieves an improved result by making such a combination is no more than hindsight without an initial suggestion to make the combination.

Applicant respectfully submits that Washington does not teach or suggest several elements of the present claims and therefore provides no basis for establishing prima facie obviousness. For example, claim 1 recites:

1. A method for simulating a product being designed, the method comprising:

creating a first graphical program that models the product being designed, wherein the first graphical program is created in a first graphical program development environment;

deploying the first graphical program on a target device for execution;

creating a second graphical program that performs a measurement function, wherein the second graphical program is created in a second graphical program development environment, wherein the second graphical program development environment is different than the first graphical program development environment;

coupling the target device to a physical system;

executing the first graphical program on the target device to simulate operation of the product, wherein the target device interacts with the physical system;

executing the second graphical program concurrently with the first graphical program to measure at least one of: 1) characteristics of the operation of the physical system and/or 2) characteristics of the operation of the product; and

displaying a single graphical user interface comprising a first one or more graphical user interface elements for the first graphical program and a second one or more graphical user interface elements for the second graphical program.

Applicant first notes that the second graphical data flow program is executed concurrently with the first graphical data flow program. However, Washington contains

no teaching regarding the concurrent execution of two different graphical data flow programs. Applicant also submits that Washington contains no suggestion that would motivate one to perform concurrent execution of two graphical data flow programs.

Additionally, Applicant respectfully submits that Washington nowhere teaches or suggests “executing the first graphical program on the target device to simulate operation of the product, wherein the target device interacts with the physical system, and executing the second graphical program concurrently with the first graphical program to measure at least one of: 1) characteristics of the operation of the physical system and/or 2) characteristics of the operation of the product”, as recited in claim 1.

Applicant also submits that “displaying a single graphical user interface comprising a first one or more graphical user interface elements for the first graphical program and a second one or more graphical user interface elements for the second graphical program” is a novel feature that is unknown in the prior art. Nowhere does Washington teach or suggest, or even hint at, displaying respective graphical user interface elements from two concurrently executing graphical program in a single graphical user interface. Nor does Washington provide any motivation to execute two graphical programs concurrently, nor to display the graphical user interface elements from the two concurrently executing graphical program in a single graphical user interface.

Applicant respectfully requests that the Examiner provide a reference that teaches the concept of such a single graphical user interface.

Applicant notes that Washington is directed to enhancing the readability of a graphical program, (Abstract), and submits that Washington’s disclosure of a graphical program generation (GPG) program is not germane to the present application. For example, Applicant notes that the present application makes no mention of a GPG program, and that automatically generating graphical programs is but one possible approach for providing graphical programs in Applicant’s system and method. It is unclear to Applicant why the Examiner has cited Washington’s GPG program generation of graphical programs against the features and limitations of claim 1, since claim 1 (and the present invention in its entirety) makes no mention of this feature.

Also, Applicant notes that the Examiner has apparently combined two different examples of independent (non-concurrent) graphical program execution in Washington (0090, 0122, fig. 2; and 0110, 0162, 0165) in an attempt to construct (via hindsight analysis) the limitation of concurrently executing two graphical programs included in claim 1, which is improper.

The Examiner admits that “Washington’s disclosure is not clear regarding the displaying one or more elements of the first and second graphical program in a same graphical user interface [sic]”, but then goes on to assert various speculated properties of Washington’s GPG program, including the unsupported assertion that “it is within the capability of the GPG to display one or more elements of the first and second graphical program in a same graphical user interface [sic]”. Applicant notes that Washington nowhere discloses or indicates this alleged feature of Washington’s GPG program.

The Examiner further asserts that “it would be naturally desirable to have a single GUI on which the user can control or monitor operations of the concurrently running multiple graphical programs”, and then asserts “that it would have obvious to one of skill in the art, at the time the invention was made, to implement the execution of the second graphical program concurrently with the first one to measure operation performance of the being modeled physical device, and displaying of one or more elements of the first and second graphical program in a same graphical user interface, such as a front panel, to Washington, which implementation enables the user to control or monitor operations of the first and second graphical program. [sic]”

Applicant respectfully submits that the Examiner’s arguments and conclusions are improper and incorrect, and submits that the Examiner has simply applied hindsight analysis, using the Applicant’s claims as a blueprint in an attempt to construct Applicant’s invention as claimed, which is improper. In fact, Applicant respectfully submits that the Examiner has simply added Applicant’s novel claimed features and limitations to Washington (and omitted primary aspects of Washington, such as the GPG program *necessarily* programmatically generating the graphical program(s)), in the attempt to construct Applicant’s invention. Moreover, the only motivations suggested by the Examiner to modify Washington to include the presently claimed features and

limitations is that “it would be naturally desirable”, and that the implementation “enables the user to control or monitor operations of the first and second graphical program”.

Applicant reminds the Examiner that per *In re Dembiczak*, 175 F.3d 994, 50 USPQ2d 1614 (Fed. Cir. 1999), the art must fairly teach or suggest to one to make the specific combination as claimed. ***That one achieves an improved result by making such a combination is no more than hindsight without an initial suggestion to make the combination.*** Applicant respectfully submits that the Examiner has simply cited an improved result as motivation to modify Washington to include the features and limitations of claim 1, which is improper.

Moreover, Washington contains no teaching or suggestion that would motivate one to perform a concurrent execution of two graphical data flow programs *that are created in two different graphical program development environments*. Furthermore, the concept of a single graphical user interface that displays graphical user interface elements from two concurrently executing graphical data flow programs created in different graphical program development environments is a novel concept that is unknown in the prior art, and Washington contains no teaching or suggestion that would motivate one to veer from the prior art in this regard.

The Office Action also presented arguments involving Kodosky et al (USP 5,475,851, “Kodosky”) and Microsoft Corporation’s Multiple Documents Interface (MDI), although these additional references were not cited in the rejection, and no MDI reference was provided by the Examiner. For example, the Examiner asserted that Washington is an improvement over Kodosky, that Kodosky discloses concurrent execution of graphical programs, and that “combining Kodosky’s teaching of concurrent running of data flow to Washington would have been obvious in light of Washington.”

Applicant respectfully submits that neither Kodosky nor Washington provides a motivation to combine. For example, nowhere does Kodosky suggest the desirability of using a GPG program to programmatically generate a graphical program, nor, as noted above, does Washington suggest the desirability of executing multiple graphical programs concurrently. Thus, Applicant submits that the Examiner’s attempted combination of Kodosky and Washington is improper. Moreover, Applicant submits that

even in combination, Kodosky and Washington still fail to teach or suggest all the features and limitations of claim 1.

The Office Action also asserts that “each node itself generate a data flow, and a diagram of connected nodes comprises multiple data flow (or subset of data flow) running concurrently”. Applicant respectfully submits that the Examiner has mischaracterized graphical program nodes. For example, Applicant notes that a data flow diagram, also referred to as a block diagram of a graphical program, comprises a plurality of interconnected nodes that visually represent functionality of the data flow diagram. Thus, a single node is not properly considered to be a data flow diagram, and so Applicant submits that a single diagram of connected nodes is *not* the same as multiple data flow diagrams running concurrently. Moreover, the Examiner has incorrectly asserted that the interconnected nodes in a single data flow diagram execute concurrently. Applicant cannot find support for this assertion in the cited art, and respectfully requests that the Examiner indicate where such support may be found.

Regarding the Examiner’s citation of MDI (without providing any reference), Applicant respectfully submits that MDI (Multiple Document Interface) is non-analogous art and is particularly not germane to graphical programming, nor to the display in one GUI of graphical user interface elements from each of two concurrently executing graphical programs. As is well known, MDI is a Microsoft Windows API (Application Programming Interface) that enables programmers to create applications with multiple windows, where each MDI application has a single *main window*, and any number of *child windows*, and where the child windows are displayed within the main window.

Applicant submits that MDI has nothing to do with graphical programs, nor graphical programming, nor programming in general, and more specifically does not address or support displaying respective graphical user interface elements from two concurrently executing graphical programs in a single GUI. Applicant respectfully submits that even were the Examiner to combine Washington, Kodosky, and MDI, the resulting combination would still not produce Applicant’s invention as claimed. It is unclear to Applicant how one would apply MDI to the domain of graphical programming, and specifically, to the display of graphical user interface elements from multiple

concurrently executing graphical programs, nor does the Examiner explain how this functionality could be accomplished.

Thus, for at least the reasons provided above, Applicant respectfully submits that claim 1, and claims dependent thereon, are patentable over Washington. Independent claims 46, 60-62, 66, and 68 recite similar features as claim 1, and so for at least the reasons provided above, Applicant submits that these claims, and claims respectively dependent thereon, are also allowable.

Applicant also asserts that numerous ones of the dependent claims recite further distinctions over Washington. For example, claim 7 recites the additional limitations of:

coupling a first computer system to the target device;

wherein said executing the second graphical program comprises executing the second graphical program on the first computer system;

wherein said executing the second graphical program to measure characteristics of the operation of the product comprises executing the second graphical program to measure characteristics of the target device.

Applicant submits that the concept of concurrently executing a first graphical program on a target device and a second graphical program on a computer system coupled to the target device, where executing the second graphical program to measure characteristics of the target device is a novel concept that is unknown in the prior art. Washington contains no teaching or suggestion that would motivate one to implement this functionality, for reasons similar to those discussed above. Applicant submits that others of the dependent claims also recite further distinctions over the cited art. However, since the independent claims have been shown to be patentably distinct, a further discussion of the dependent claims is not necessary at this time.

Applicant thus submits that the present claims are patentable over Washington for at least the reasons given above.

Removal of the 103 rejection of claims 1 – 31 and 32 – 68 is respectfully requested.

CONCLUSION

In light of the foregoing amendments and remarks, Applicant submits the application is now in condition for allowance, and an early notice to that effect is requested.

If any extensions of time (under 37 C.F.R. § 1.136) are necessary to prevent the above referenced application(s) from becoming abandoned, Applicant(s) hereby petition for such extensions. If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert & Goetzel PC Deposit Account No. 50-1505/5150-64600/JCH.

Also enclosed herewith are the following items:

- ☒ Return Receipt Postcard
- ☐ Check in the amount of \$ for fees ().
- ☐ Other:

Respectfully submitted,



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